

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Original) A gas separator fixing structure provided with a gas separator having a gas separation membrane formed on at least one surface of a tubular support having a through hole in axial direction and comprising porous ceramics, characterized in that a cap-like metal member and a ring-shaped metal member are compression-fixed to one and the other open end of the gas separator through seal members, respectively, and seal members are gland packings.
2. (Original) A gas separator fixing structure according to claim 1, wherein the cap-like metal member comprises a first cap-like or ring-shaped packing presser which gives a tightening pressure to one of the gland packings in the axial direction of the tubular support and a ring-shaped or cap-like lower stopper which inhibits movement of the one of the gland packings, and the ring-shaped metal member comprises a second ring-shaped packing presser which gives a tightening pressure to another gland packing in the axial direction of the tubular support and a ring-shaped upper stopper which inhibits movement of the another gland packing.
3. (Original) A gas separator fixing structure according to claim 2, wherein the first packing presser has a convex shape which directly presses one of the gland packings by its tip portion, and the lower stopper has a concave shape which directly contacts with the one of the gland packings and fits to the convex shape of the first packing presser, and the second packing presser has a convex shape which directly presses another gland packing by its tip portion, and the upper stopper has a concave shape which directly contacts with the another gland packing and can fit to the convex shape of the second packing presser.

4. (Original) A gas separator fixing structure provided with a gas separator having a gas separation membrane formed on at least one surface of a tubular support having a through hole in axial direction and comprising porous ceramics, characterized in that ring-shaped metal members are fixed to both open ends of the gas separator through seal members, respectively, and the seal members are gland packings.

5. (Original) A gas separator fixing structure according to claim 4, wherein the ring-shaped metal member comprises a ring-shaped packing presser which gives a tightening pressure to the gland packing in the axial direction of the tubular support and a ring-shaped stopper which inhibits movement of the gland packing.

6. (Original) A gas separator fixing structure according to claim 5, wherein the ring-shaped packing presser has a convex shape which directly presses the gland packing by its tip portion, and the ring-shaped stopper has a concave shape which directly contacts with the gland packing and can fit to the convex shape of the ring-shaped packing presser.

7. (Previously Presented) A gas separator fixing structure according to claim 1, wherein the tubular support has a plurality of through holes arranged in rows.

8. (Previously Presented) A gas separator fixing structure according to claim 1, wherein the maximum value of operating temperature range of the gland packing is 300°C or higher.

9. (Previously Presented) A gas separator fixing structure according to claim 8, wherein the maximum value of operating temperature range of the gland packing in a non-oxidizing atmosphere is 350 °C or higher.

10. (Previously Presented) A gas separator fixing structure according to claim 9, wherein the maximum value of operating temperature range of the gland packing in a non-oxidizing atmosphere is 600°C or higher.
11. (Previously Presented) A gas separator fixing structure according to claim 1, wherein the main component of the gland packings is expanded graphite.
12. (Previously Presented) A gas separator fixing structure according to claim 1, wherein the porous ceramics is alumina.
13. (Previously Presented) A gas separator fixing structure according to claim 1, wherein the gas separation membrane is a hydrogen separation membrane through which hydrogen selectively permeates.
14. (Previously Presented) A gas separator fixing structure according to claim 1, wherein the gas separation membrane comprises palladium or a metal containing palladium.
15. (Previously Presented) A gas separator fixing structure according to claim 1, wherein the material constituting the cap-like metal member and/or ring-shaped metal member has a thermal expansion coefficient of $4 \times 10^{-6} - 10 \times 10^{-6}/^{\circ}\text{C}$.
16. (Previously Presented) A gas separator fixing structure according to claim 1, wherein the material constituting the cap-like metal member and/or ring-shaped metal member is Permalloy.
17. (Previously Presented) A gas separator fixing structure according to claim 1 which is used at a temperature in the range of 250-1650°C.

18. (Previously Presented) A gas separator fixing structure according to claim 1 which is used at a temperature in the range of 300-600°C.

19. (Previously Presented) A gas separator fixing structure according to claim 1 which is used under a pressure of 0.1-10 MPa in the total pressure of the gas to be treated.

20. (Previously Presented) A gas separating device comprising a gas separator fixing structure provided with a gas separator having a gas separation membrane formed on at least one surface of a tubular support having a through hole in axial direction and comprising porous ceramics, wherein a cap-like metal member and a ring-shaped metal member are compression-fixed to one and the other open end of the gas separator through seal members, respectively, and seal members are gland packings, and being provided with a pressure container, wherein the ring-shaped metal member is fixed to an inner surface of the pressure container.

21. (Previously Presented) A gas separating device comprising a gas separator fixing structure provided with a gas separator having a gas separation membrane formed on at least one surface of a tubular support having a through hole in axial direction and comprising ceramics, wherein the gas separator fixing structure is fixed in a container having an inlet, a first outlet and a second outlet,

wherein a specific gas component in a gas to be treated which flows into the device from an inlet is allowed to permeate the gas separation membrane and to flow out from the first outlet, and a gas which does not permeate through the gas separation member is allowed to flow out from the second outlet, and

wherein ring-shaped metal members are fixed to both open ends of the gas separator through seal members, respectively, and the seal members are gland packings.

22. (Original) A gas separating device according to claim 21 which is provided with a buffer which absorbs expansion of the gas separator.

23. (New) A gas separator fixing structure according to claim 2, wherein each of the upper and lower stoppers have a bore passing at least partially therethrough and the bore has a first internal diameter for receiving the gland seal and a second, larger internal diameter for receiving at least a portion of the packing presser.